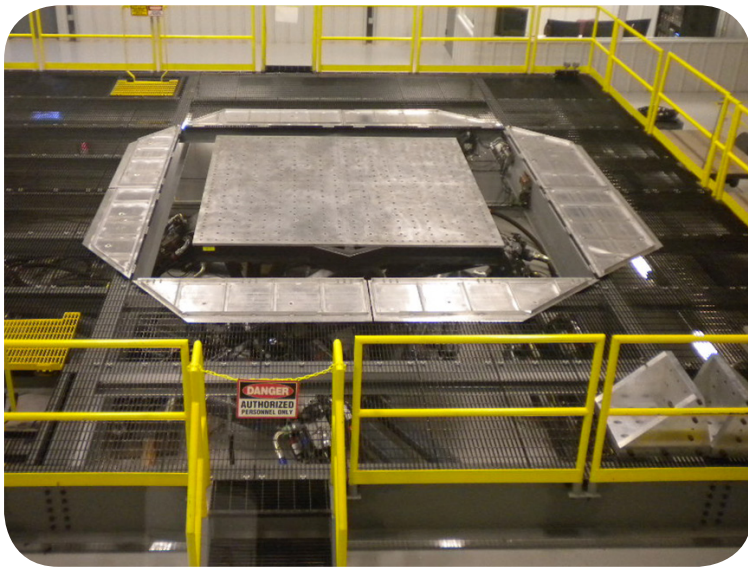


Seismic and Vibration Testing

AREVA U.S. Technical Center



The U.S. Technical Center has one of the largest and most capable tri-axial seismic shake tables in North America. The generous 10x10 foot table platform offers flexible mounting options for large equipment, up to 20,000 lbs.



Mass (lbs.)	Peak Acceleration (g)
5,000	25
10,000	10
15,000	7
20,000	5

Criteria	Specification
Type of waveforms	Time-history earthquake (RRS-method), sinusoidal sweep, sine beat; RIM testing
Table platform size	10x10 foot; fixture mounting holes in 6-inch pattern
Nominal payload	10,000 pounds (maximum rated payload is 20,000 lbs.)
Max Frequency	100 Hz
Zero Peak Acceleration (ZPA)	7g (X, Y, Z) spectral acceleration, 5% damping, nominal payload
Peak Dynamic Displacement	±5 inches under nominal load
Peak Velocity	70 inches per second

Safety is our number one priority!

Customers communicate with the control room and witness test programs from the safety of the conference room overlooking the shake table. Test specimens are received by truck through a large overhead door, and moved to the seismic shake table by a 5-ton overhead crane.

Data Acquisition and Testing Support

Calibrated data acquisition equipment includes accelerometers, chatter monitoring, and strain gauges depending on the application. The lab is equipped with high voltage AC/DC power supplies and other services allowing the operation and monitoring of test specimens during testing.

Mechanical Vibration Testing and Aging

For smaller items weighing up to 350 lbs., our single-axis electro-dynamic shake table provides a mechanical and seismic testing capabilities, delivering 9 kN of sine force at velocities of 2 m/sec.

Customized Test Fixtures and Analysis

The AREVA mechanical design team and in-house machine shop provide customized rigid test fixtures to ensure specimens are tested exactly as they are mounted in the field. Engineering support is available for finite element analysis and resolution of test anomalies as necessary.

Quality Assurance

Testing is performed according the AREVA Inc. Nuclear Quality Assurance program.

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Features and Benefits

- Hydraulic and electro-dynamic shake tables
- Full-service lab, supported by AREVA's engineering capabilities and mechanical design
- Appendix B, NQA-1, and ISO approved quality program

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